P1310 **STUDY OF RISK FACTORS AND PREVALENCE OF PULMONARY HYPERTENSION IN CKD 5D PATIENTS ON HEMODIALYSIS**

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Background and Aims: Pulmonary hypertension (PH) in chronic kidney disease stage 5D (CKD5D) patients on haemodialysis (HD) is associated with increased morbidity and mortality. We studied the risk factors and prevalence of PH in patients on HD at our centre. We also studied its association with oxidative stress and markers of inflammation.

Method: After ethics committee clearance, we conducted a cross-sectional study on CKD5D patients at our centre from June 2016 to May 2017. Patients on maintenance HD for at least 3 months were included. Demographic, clinical, biochemical and trans-thoracic echocardiography details were collected. PH was defined as estimated mean pulmonary artery pressure (mPAP) greater than 25 mm Hg at rest. PH was further categorized into mild (mPAP b/w 25-40mmHg), moderate (mPAP b/w 40-60mmHg) and severe PH (mPAP > 60mmHg). Serum thiol and C Reactive protein (CRP) were studied as markers of oxidative stress and inflammation respectively. Data was analysed using SPSS version 16.

Results: Out of 52 patients, 28 (54%) had PH. Twenty four out of these patients had mild PH (Figure 1). None had severe PH. The baseline characteristics of patients with and without PH are shown in Figure 2. No clinical or biochemical factors (p>0.05) were found as significant risk factors in our study. CRP (p-0.76) (inflammatory marker) and Thiol levels (p-0.36) (oxidative stress marker) did not had any relationship with occurrence of PH. (Table 1).

Conclusion: CKD 5D patients on HD have high prevalence of PH. There were no identifiable risk factors. The prevalence of PH was not influenced by dialysis vintage,

Table 1 : Demographic, clinical, biochemical, echocardiographic findings of study population (CKD 5D on haemodialysis) with and without pulmonary hypertension

Characteristics	Total (52)	PH(Yes)(28)	PH(No)(24)	P value
Clinical				
Age(years) ##	57(47,68)	57(46,66)	57(52,68)	0.31
Sex(Male)	40	19	21	0.09
DM*	17	10	7	0.61
DM Duration	4.4(3,9)	4.4(3,9)	4.4(3,9)	0.65
HTN#	51	28	23	0.12
HTN duration	10(5,10)	10(4,11)	11(5,12)	0.54
Residual urine (UOP<100 ml)	34	20	14	0.32
Access (AV Fistula)	48	26	22	0.13
CVA $	2	1	1	0.91
IHD +	7	3	4	0.53
SMOKING	2	1	1	0.27
Dialysis Vintage(Months)	36(22,91)	30(22,84)	47(24,97)	0.42
WEEKLY Ultra˚ltration (ml/hour/kg)	15(11,18)	15(11,18)	15(11,18)	0.83
Biochemical Characteristics				
HgB (g/L)##	9.7(8.8,10.5)	9.1(8.6,10.5)	10.2(9.2,10.8)	0.14
Calcium(mg/dl)##	8.5(8.1,8.9)	8.7(8.2,9.0)	8.2(7.9,8.9)	0.16
Phosphorous(mg/dl)##	4.4(3.2,5.6)	4.5(3.2,5.1)	4.7(3.5,6.5)	0.08
Albumin(g/L)##	4.05(3.8,4.2)	4.1(3.9,4.2)	4(3.7,4.1)	0.12
PTH(ug/ ##	333(175,561)	366(182,544)	219.4(156,520)	0.66
Ferritin (mg)##	1214(990,1781)	1224(1037,1987)	1204(376,1681)	0.64
CRP (mg/dl)	2.1(1.3,5.3)	2(1.3,5.8)	2.2(1.5.4)	0.76
THIOL(umol/L)	266(182,605)	304(146,776)	223.9(187,417)	0.36
Echocardiographic ˚ndings				
Ejection Fraction (%)##	63.5(57.7,66)	62(53,65)	65(62,67)	0.31
LVH Left Ventricular Hypertrophy(LVH)	37	18	19	0.49
Regional wall motion abnormality(RWMA)	7	4	3	0.63
Tricuspid regurgitation(TR)	43	28	15	0.001
Mitral Regurgitation(MR)	32	23	9	0.002
Left Ventricular systolic dysfunction(LVSD)	9	8	1	0.09
Left ventricular diastolic dysfunction(LVDD)	13	8	5	0.58
Right ventricular Systolic dysfunction(RVSD)	4	4	0	0.07

*DM- Diabetes Mellitus,

#HTN-Hypertension, $CVA-Cerebro vascular Accident, + IHD –Ischemic heart disease,

**CRP – C reactive Protein, THIOL MDA,

###Mean,

##Median

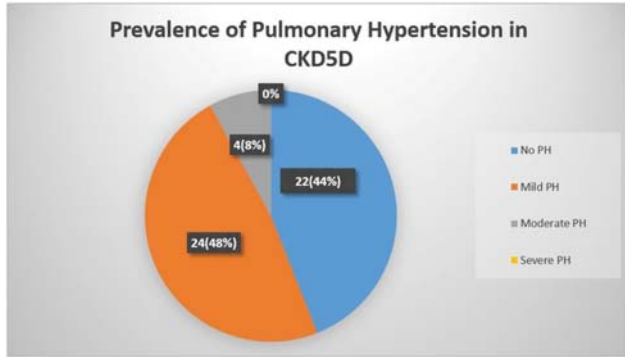ultrafiltration, paratharmone levels, presence of co-morbidities, oxidative stress or inflammation.

Figure 1: